

Oct. 14, 1969

M. S. NADLER
MOCCASIN FOOTWEAR

3,471,948

Filed Oct. 27, 1966

3 Sheets-Sheet 1

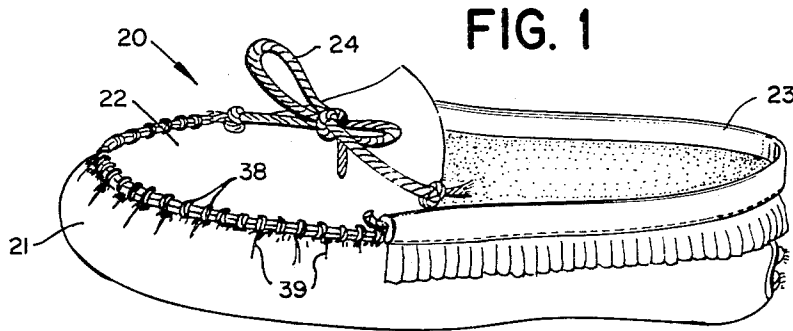


FIG. 2

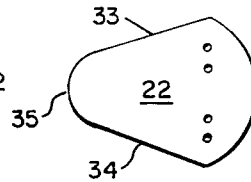
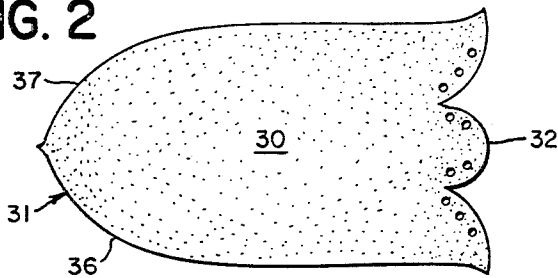


FIG. 4

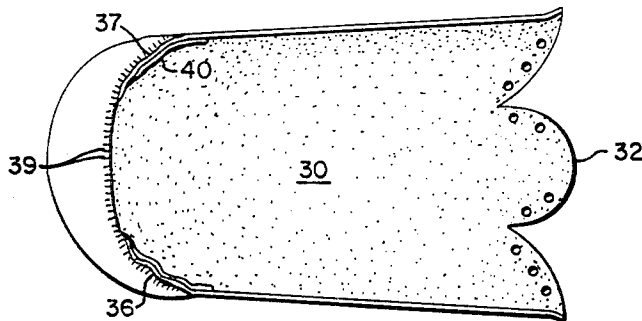
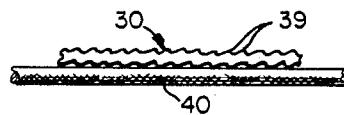
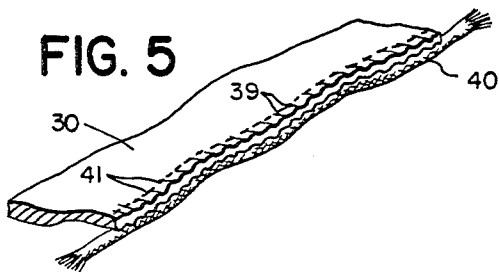


FIG. 5



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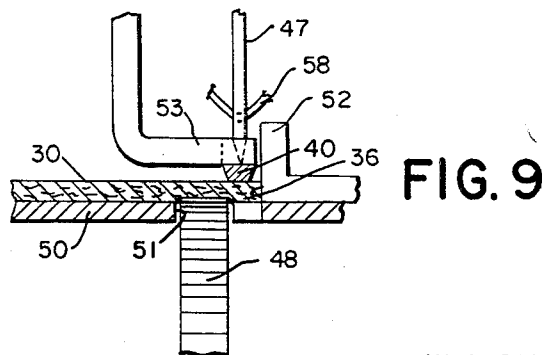
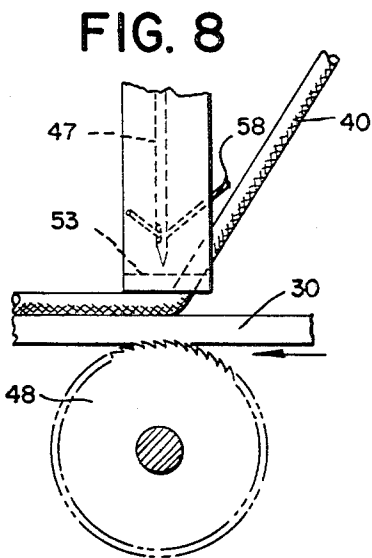
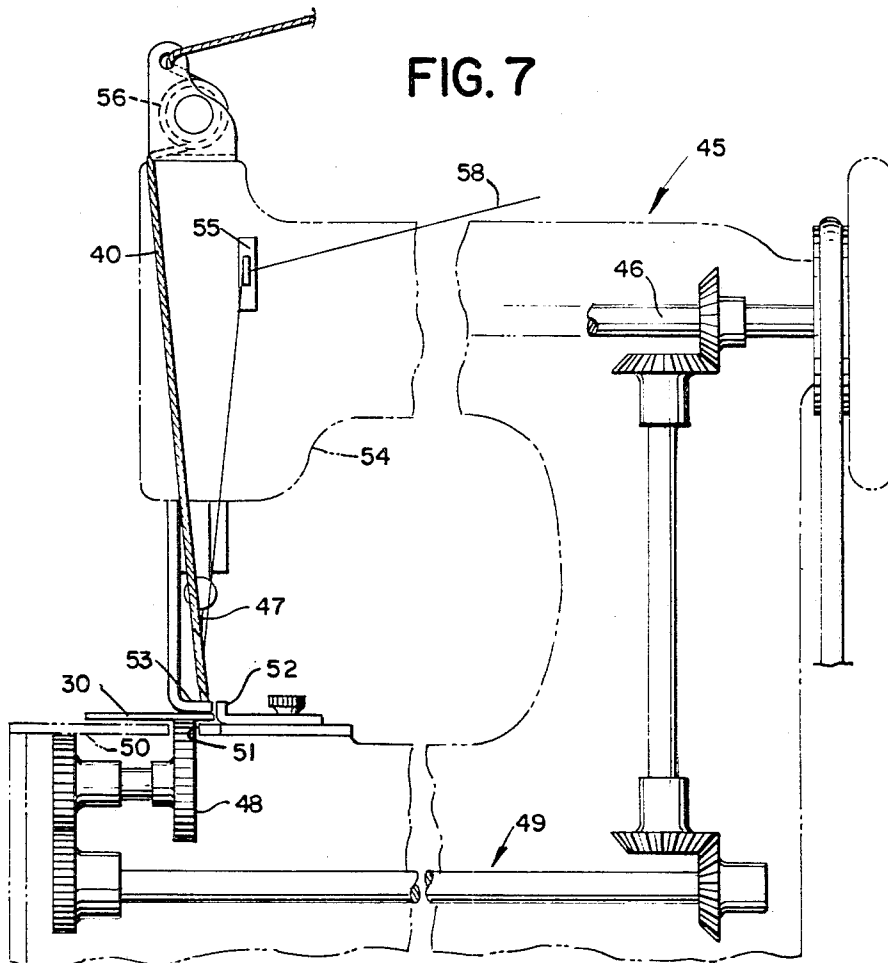
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FIG. 10

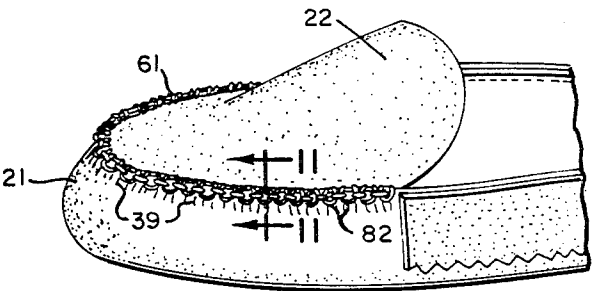


FIG. 11

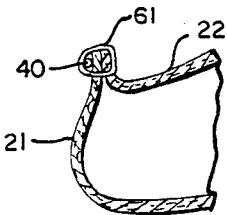


FIG. 12

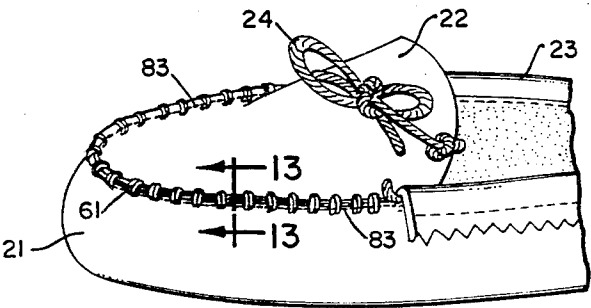
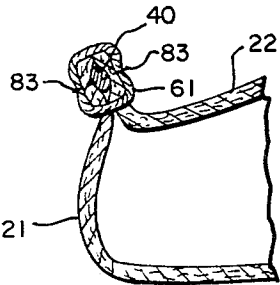


FIG. 13



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MOCCASIN FOOTWEAR

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U.S. Cl. 36—11

6 Claims

ABSTRACT OF THE DISCLOSURE

The disclosure describes moccasin footwear which is entirely machine stitched but which retains the pleasing appearance of hand-stitched moccasins in that the plug piece is joined to the mudguard piece by a row of attractive coarse parallel stitches extending over a raised seam which is tightly closed by a second row of fine stitches; and a method of manufacturing such moccasin footwear including the step of everting the partially finished moccasin so that the locking loops of the coarse stitches lie inside the toe piece of the finished moccasin.

The present invention relates generally to moccasin and moccasin-type footwear, and methods of manufacture thereof. More particularly, the present invention is directed to such footwear having an improved upper construction resulting from novel methods of manufacture.

In a true moccasin, the sole and the peripheral portion of the upper, sometimes called the mudguard, are included in a single continuous piece of material. The edge of the mudguard is gathered so as to form a toe pocket, and either stitched or laced to the instep portion of the upper, sometimes called the plug. The heelward ends of the mudguard are then stitched or laced together so as to form a counter, thus completing the moccasin.

One problem of moccasin manufacture has been to reduce the much greater peripheral length of the front part of the mudguard (sometimes called the vamp) to coincide with the smaller peripheral length of the plug so that the two pieces can be properly secured. In the original, hand-made moccasins, this was accomplished by hand stitching or lacing, wherein the outer edge of the mudguard was gathered, stitch by stitch, to the plug. This operation created the attractive raised, puckered seam, traversed by equally spaced parallel stitches, which is characteristic of hand-made moccasin footwear.

Unfortunately, the handwork involved in the traditional method of manufacturing moccasin footwear is both onerous and costly. Therefore, attempts have been made to provide moccasin and moccasin-type footwear which is entirely machine-made, but which retains the characteristic appearance of hand-made moccasin footwear. For example, U.S. Patent No. 2,774,087 to Joseph D. Bozza described a "Method for Securing Together Moccasin Vamps and Plugs," wherein the vamp, or mudguard, is joined to the plug in a raised seam by means of machine stitches extending over the seam. This method produces a footwear which resembles a hand-sewn moccasin except that the locking loops typical of machine stitching are clearly visible on the exterior of the finished product.

Another method, described in U.S. Patent No. 2,946,069 to J. D. Bozza, involves the machine stitching of the plug to the mudguard while the moccasin is turned inside out so that, when the moccasin is turned right side out, the locking loops will be concealed on the inside, and only the attractive parallel stitches will be visible on the outside. As a result of this method, the plug and mudguard of the finished moccasin are joined in an edge-abutting relationship so as to form a flush seam

rather than the characteristic raised seam of the traditional hand-sewn moccasin.

The present invention contemplates improved machine-made moccasin footwear and methods of manufacture thereof.

More particularly, it is an object of the present invention to provide true moccasin footwear wherein the plug is joined to the mudguard by means of an attractive raised seam traversed by equally spaced substantially parallel stitches.

It is also an object of the present invention to provide a method of manufacturing such moccasin footwear which completely eliminates the onerous and costly handwork until now inherent.

According to the above objects, the present invention provides the following improved method of manufacturing true moccasin footwear. First, a toe pocket is formed in the integral sole and mudguard piece with the ultimately inside surface of the toe pocket facing outward. If desired, a non-extensible cord may be stitched about the periphery of the toe pocket in order to retain its shape, or other ways may be used to retain the toe pocket, such as molding, heat setting, cement or the like. The plug piece is then positioned in edge-to-edge alignment with the periphery of the toe pocket, the ultimately outside surface of the plug piece flatly contacting the ultimately outside surface of the toe pocket. The plug piece is then somewhat loosely machine stitched to the toe pocket along the raised seam thus formed. At this point, the partially manufactured moccasin is everted, or turned right side out, so as to bring the ultimately inside surface of the plug into flat contact with the ultimately inside surface of the toe pocket, at the rim of the pocket, thus forming a seam with a raised edge. It is noted that, at this point, the typical machine locking loops are concealed inside the moccasin, while only the attractive parallel stitches extending over the raised edge of the seam are visible on the outside. Finally, the seam is tightly closed by means of a row of fine stitches beneath the raised edge of the seam which, owing to their fineness, do not detract from the appearance of the finished moccasin.

It is noted that the present invention may be advantageously applied to moccasin-type footwear wherein the sole is originally a separate piece from the mudguard, the two pieces being joined by stitching, cementing, or other suitable means during some intermediate stage of manufacture of such footwear.

Other objects and advantages of the present invention will be apparent from the following detailed description and accompanying drawings which set forth the principles of the invention and a preferred embodiment thereof.

In the drawings:

FIG. 1 is a perspective view showing one form of a true moccasin constructed in accordance with the present invention.

FIG. 2 is a plan view showing an integral sole and mudguard blank before assembly of the moccasin shown in FIG. 1.

FIG. 3 is a plan view showing a plug blank before assembly of the moccasin shown in FIG. 1.

FIG. 4 is a plan view showing the integral sole and mudguard blank of FIG. 2 in an intermediate stage of manufacture.

FIG. 5 is an enlarged, fragmentary perspective view showing a detail of the construction of the moccasin of FIG. 1.

FIG. 6 is a fragmentary, greatly enlarged view, showing in detail a feature of the construction of one embodiment of the invention.

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FIG. 7 is a front elevation, partly broken away and partly in dot-and-outline, showing a sewing machine adapted for use in the practice of the present invention.

FIG. 8 is a fragmentary view of the sewing machine of FIG. 7 showing the manner of operating the latter in the practice of the present invention.

FIG. 9 is a fragmentary front elevation of the elements shown in FIG. 8.

FIG. 10 is a fragmentary perspective view of an intermediate stage of manufacture of the moccasin structure of FIG. 1.

FIG. 11 is a fragmentary view of a portion of the construction of FIG. 10 showing a cross-section of the seam thereof.

FIG. 12 is an enlarged, fragmentary perspective view showing the finished seam of the moccasin structure of FIG. 1.

FIG. 13 is a cross-sectional view of the seam shown in FIG. 12.

Referring in more detail to the drawings, FIG. 1 shows a moccasin, generally designated 20, in which the peripheral portion of the upper 21, hereinafter called the mudguard, is secured to the instep portion of the upper 22, hereinafter called the plug, by means of a raised seam traversed by equally spaced substantially parallel stitches. Moccasin 20 also includes a collar 23 extending along the edge of mudguard 21 rearwardly of plug 22 and enclosing a lace 24.

Mudguard 21 is formed from blank 30, shown in FIG. 2, which has a curved front portion 31 and scalloped rear portion 32. The edge of front portion 31 is adapted to be drawn up from the sole portion of blank 30 so as to form the mudguard 21 of the moccasin shown in FIG. 1. The rear portion 32 of blank 30 is laced or otherwise secured together to form the counter or heel section of the moccasin shown in FIG. 1.

The fore part of plug 22, shown in FIG. 3, is then arranged with its diverging edges 33 and 34 and front curved edge 35 secured to the drawn-up front edges 36 and 37 of sole and mudguard blank 30, shown in FIG. 2, by means of stitches 38, shown in FIG. 1.

More particularly, as shown in FIG. 4, curved front edges 36 and 37 of blank 30 are provided with a plurality of relatively minute, contiguous, substantially uniform gathers or crimps 39. A cord or tape 40 may be secured along gathered edges 36 and 37 by means of stitches 41 so as to retain the curved front edges of blank 30 in their gathered condition at least during manufacture, thereby providing a toe pocket. For this purpose, cord or tape 40 should preferably be non-elastic, or inextensible, so as to provide a maximum of restraining force, although elastic cords may be used.

FIGS. 7, 8, and 9 demonstrate a preferred means of manufacturing the above-described moccasin structure. A sewing machine generally designated 45, includes a drive shaft 46 which is operatively connected to the sewing needle 47, and which is also operatively connected to the serrated or toothed feed roll or wheel 48 for driving the latter through the gear train, generally designated 49. The sewing machine 45 further comprises an operating table or working plate 50 having a through aperture 51 for receiving the upper portion of the feed wheel 48, and a work guide 52 adjustably mounted on working plate 50. A presser foot 53 disposed above aperture 51 and feed wheel 48, is adjustably mounted on the sewing machine arm 54. A threadloop 55 is provided on the sewing machine arm 54. A suitable cord tensioning device 56 is also mounted on the sewing machine arm.

In practicing the present invention, the leather or other material being operated on, blank 30 in this case, is arranged on work table 50 with its edge 36 abutting the guide 52 so that its edge portion is disposed over feed wheel 48 and beneath presser foot 53. In the conventional manner, thread 58 extends through loop 55

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and through needle 47, the latter being vertically reciprocable through presser foot 53. The usual bobbin, not shown, is located under table 50 and serves to engage thread 58 in order to form the stitches. Cord 40 extends through tensioning device 56, between presser foot 53 and blank 30, and in the path of needle 47.

In operation, needle 47 reciprocates vertically and feed wheel 48 rotates in a counter-clockwise direction, as shown in FIG. 8. The serrations or teeth of feed wheel 48 frictionally engage the underside of leather blank 30 so as to move the latter to the left. Presser foot 53 holds cord 40 firmly against the upper surface of leather blank 30, in frictional engagement therewith, so that cord 40 would normally be moved along with an sewn to blank 30. Cord 40 is held back or restrained, preferably resiliently, by tensioning device 56. Therefore, it is seen that, as feed wheel 48 is positively driven, its teeth engage and serve to crimp leather 30 against the more slowly moving cord 40. During this operation, cord 40 is secured to the crimped or gathered leather 30 by the stitching of needle 47. Thus, upon the removal of leather blank 30 and its attached cord 40, the edge portion of the leather will be in a gathered or crimped condition by the attached cord, as shown in FIGS. 5 and 6.

Further, the above-described crimping or gathering action will serve to draw up the edge of originally flat blank 30 so as to form a toe pocket as shown in FIG. 4. Moreover, if it is desired to vary the depth of the toe pocket thus formed, it is necessary merely to increase or decrease the tension under which cord 40 is held during the stitching process. That is, with cord 40 under greater tension, the retardation of blank 30 will be increased, thereby increasing the gathering or crimping action so as to deepen the toe pocket. Conversely, when the cord tension is decreased, the gathering action and the depth of the pocket will be decreased.

The desired amount of drawing up of the front edge of blank 30 is determined by the peripheral length of plug 22. More particularly, edges 33, 34, and 35 of plug 22 should just fit within the reduced periphery formed by the drawn-up edges 36 and 37 of blank 30.

After the toe pocket has been formed, integral sole and mudguard piece 30 is arranged so that its ultimately inside surface is on the outside. In other words, sole and mudguard piece 30 is arranged so that cord 40 is on the outside of the toe pocket. Plug 22 is then fitted to the toe pocket with its ultimately inside surface facing outward. More particularly, edges 33, 34 and 35 of plug 22 are placed in alignment with the drawn-up edges 36 and 37 of the toe pocket of integral sole and mudguard piece 30. Further, the edge portion of the ultimately outside surface of plug 22 is made to contact the edge portion of the ultimately outside surface of mudguard 21. Plug 22 may then be stitched into place by an overlapping stitch sewing machine (also sometimes called an over-edge sewing machine) or other suitable means. The stitches 61 are made to be somewhat loose so as to facilitate the subsequent eversion of the partially finished moccasin. Collar 23 is then attached, preferably by stitching. At this point, the moccasin has reached the intermediate stage of manufacture shown in FIG. 10. Note that, in FIG. 10, locking loops 82, which are typical of machine stitching, are on the outside of the partially completed moccasin. Further, as more clearly illustrated in FIG. 11, cord 40 is also located on the outside of the partially completed moccasin.

At this point, the partially completed moccasin shown in FIGS. 10 and 11 is everted, or turned right side out, so as to arrive at the moccasin shown in FIGS. 12 and 13.

Referring to FIG. 12, it is noted that only the attractive equally spaced parallel stitches 61 are visible on the exterior of the moccasin. The locking loops 82 shown in FIG. 10 are now out of sight inside the moccasin shown in FIG. 12. Further, as more clearly illustrated in FIG. 13, cord 40 is also concealed inside the moccasin.

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At this point, the raised seam joining plug 22 to mudguard 21 is tightly closed by means of a row of fine stitches 83 located beneath the raised edge of the seam. Although, in the preferred form of my invention shown in FIGS. 12 and 13, fine stitches 83 are superimposed over, or applied on top of coarse parallel stitches 61, it will be appreciated that the precise location of stitches 83 may be modified within the scope of the present invention. For example, stitches 83 might be located below and immediately adjacent to stitches 61. In practice, stitches 83, because of their fineness, are extremely unobtrusive, particularly when superimposed on stitches 61, and, therefore, do not detract from the pleasing hand-sewn appearance of the finished moccasin.

After applying stitches 83, it is merely necessary to lace or stitch up the heel portion 32 of piece 30, insert lace 24, and stitch down collar 23 in order to complete the moccasin shown in FIG. 1. Obviously, lace 24 and collar 23 are optional and may be omitted from certain styles, as desired. Sock linings, inner soles, outer soles and heels may be attached as desired. This article of footwear therefore not only lends itself to the simple processes and steps described above, requiring no hand stitching whatever, but in addition provides a handsome moccasin including an attractive raised seam traversed by equally spaced substantially parallel stitches closely resembling that of the traditional hand-sewn moccasin.

It will be understood that the novel features of the present invention may be employed in connection with true moccasins with or without hard soles, such construction being omitted from the drawings for purpose of clarity. Also, the same edge stitching and construction may be used in moccasin-type footwear, having the sole separate from the mudguard and suitably secured thereto.

From the foregoing, it is clear that the present invention fully accomplishes its intended objects, and provides a construction and method of manufacture well adapted to meet the practical conditions of use.

Although a preferred form of the present invention has been set forth in some detail in the above description and accompanying drawings, the spirit of the present invention is not intended to be limited thereby.

What is claimed is:

1. A footwear construction comprising:
 - mudguard piece, said mudguard piece being formed into a toe pocket;
 - a plug piece, a portion of the edge of said plug piece being joined to the periphery of said toe pocket, in edge-to-edge alignment, with the inside surface of said plug piece contacting the inside surface of said mudguard piece so as to form a seam having a raised edge;
 - a row of coarse, equally spaced, substantially parallel machine stitches extending over the raised edge of

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said seam, and having locking loops inside said toe pocket, so as to substantially secure said plug piece to said mudguard piece while presenting the appearance of a hand-sewn moccasin; and

- a row of fine machine stitches extending through said seam beneath the raised edge thereof so as to tightly close said seam.

2. A footwear construction of the type described in claim 1 wherein said mudguard piece comprises an integral sole and mudguard piece.

3. A moccasin footwear construction of the type described in claim 1 wherein said row of fine machine stitches is superimposed over said coarse parallel machine stitches.

4. A moccasin footwear construction comprising:

- a piece having a mudguard portion, a part of the edge of said mudguard portion being gathered so as to form a toe pocket;

- a non-extensible cord secured by stitches to the gathered edge of, and on the inside surface of, said toe pocket so as to retain the shape of said toe pocket;

- a plug piece, a portion of the edge of said plug piece being joined to the gathered portion of the edge of said mudguard, in edge-to-edge alignment, with the inside surface of said plug piece contacting the inside surface of said mudguard so as to form a seam having a raised edge;

- a row of coarse, equally spaced, substantially parallel machine stitches extending over the raised edge of said seam, and having locking loops inside said toe pocket, so as to substantially secure said plug piece to said mudguard piece while presenting the appearance of a hand-sewn moccasin; and

- a row of fine machine stitches extending through said seam beneath the raised edge thereof so as to tightly close said seam.

5. A moccasin footwear construction of the type described in claim 4 wherein said piece having a mudguard portion comprises an integral sole and mudguard piece.

6. A moccasin footwear construction of the type described in claim 4 wherein said row of fine machine stitches is superimposed over said coarse parallel machine stitches.

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PATRICK D. LAWSON, Primary Examiner